

**OFFICE OF ELECTRICITY DELIVERY AND ENERGY RELIABILITY (OE)**  
**U.S. DEPARTMENT OF ENERGY**  
**Hurricane Katrina Situation Report #27**  
**September 8, 2005 (10:00 AM EDT)**

**HIGHLIGHTS**

- Currently 731,434 customers remain without electric power in Louisiana and Mississippi due to Hurricane Katrina. This is down by nearly 2 million from a peak of 2.7 million customers that were without power after Hurricane Katrina struck the region.
- The Energy Information Administration (EIA) released its Short Term Energy Outlook yesterday and estimated that normal operations of oil and gas production and distribution would be achieved by December 2005.
- Natural gas transmission pipelines in the path of Katrina survived with minimal damage. Four natural gas processing plants accounting for roughly 5.5 billion cubic feet per day are currently not operating due to hurricane-induced damage. These plants can potentially be bypassed for a period of time while repairs are made with an acceptable impact on natural gas specifications.
- Mississippi Power now estimates that all customers who can receive power will have service restored by the end of the day Sunday 9/11/05. **Entergy also reports that most of its Mississippi customers will have power restored by then as well.**
- According to coal analysts, it is estimated that Hurricane Katrina may impact coal consumption this fall because coal-fired plants that typically ramp down following the peak summer months may be required to continue generating at high levels to make up for the gap caused by damage to gas production.
- NOAA observed one of the largest solar flares on record 9/7/05, the 4th largest in the last 15 years. This event created a complete blackout of high frequency communications on the daylit side of Earth. Significant eruptions are expected in the coming days. Agencies impacted by space weather storms may experience disruptions over the next two weeks. These include spacecraft operations, electric power systems, HF communications, and low-frequency navigations systems. This could have an impact on emergency personnel in the Gulf who make use of those frequencies.
- ESF-12 was activated by the Federal Emergency Management Agency to support multiple locations. DOE staff are at the National Response Coordination Center (NRCC) at FEMA HQ, FEMA Regions IV and VI, and the State Emergency Operation Centers (EOC) in Louisiana and Mississippi. **A second site in Louisiana is about to be opened in New Orleans.**

## **PETROLEUM AND GAS INFORMATION**

- ESF-12 staff in MS and LA **continue to report** that fuel supplies to local areas are improving. Lines at gasoline stations are starting to decrease, especially in MS where power restoration at the major terminal in Collins has allowed for improvements in petroleum product deliveries.
- According to Wednesday's MMS reports, 19.9 percent of 819 manned platforms and 11.9 percent of 137 rigs have been evacuated in the Gulf of Mexico (GOM). Yesterday's shut-in oil production was 860,568 BOPD. The shut-in oil production is equivalent to 57.4 percent of the daily oil production in the GOM, which is currently approximately 1.5 million BOPD. Tuesday's shut-in gas production was 4.035 BCFPD. This shut-in gas production is equivalent to 40.4 percent of the daily gas production in the GOM, which is currently approximately 10 BCFPD.

### **Improvement in GOM Shut-in Oil and Gas 8/30/05 – 9/7/05**

<b>Date</b>	<b>Percent of GOM Oil Shut-in</b>	<b>Percent of GOM Gas Shut-in</b>
August 30	95.20	87.99
August 31	91.45	83.46
September 1	90.43	78.66
September 2	88.53	72.48
September 3	78.98	57.80
September 4	No data reported	No data reported
September 5	69.57	54.13
September 6	58.02	41.06
September 7	57.37	40.36

- Atmos Energy, the country's largest pure natural gas distributor, estimates that approximately 230,000 of its natural gas customers have been affected by Hurricane Katrina, mostly in Louisiana.
- Kinder Morgan Energy Partners, L.P. reported that its company-owned terminals in Louisiana and Mississippi suffered no significant structural damage as a result of Hurricane Katrina and seven of the nine are in service. KMP's Delta Terminal in Harvey, La., which has storage capacity of about 3 million barrels for petrochemicals and oilfield products, is expected to resume limited operations this week, pending restoration of electric power. KMP is also waiting for electricity service to resume at its International Marine Terminal (IMT) facility in Myrtle Grove, La., which will allow the company to better assess the status of operations and establish a start-up schedule. IMT handles approximately 12 million tons of coal and other materials annually.
- Entergy reports that there has been extensive damage to Entergy's gas distribution system which has affected service to many of Entergy's 147,000 natural gas customers in New Orleans. The company reports that as water is pumped out of the city, company teams of employees will reenter to survey areas for damage and isolate leaks. Areas that are damaged will be identified for repair. Those repairs will be prioritized and worked to

return the system to normal operation. Entergy has responded to news reports that have indicated that large fires were being caused by gas leaks. Entergy Gas Operations personnel have reported there was no evidence that these fires are gas-related.

- Entergy has 17 generating units in the New Orleans area that are fueled by natural gas and/or oil. Nine of those units have been returned to service, with one more expected to return late this week. Currently, generation capacity is sufficient to meet load, and their fuel supplies are adequate.
- Entergy continues to work to preserve gas flow to the New Orleans Sewage and Water Board (SWB) in order to allow power generation for SWB pumps that are critical to the mission of pumping water out of flooded areas of the city.
- The lower Mississippi is open during daylight hours only to traffic with drafts of at least 39 feet. The Gulf Intracoastal Waterway (GIWW) was opened to traffic across areas of Louisiana Tuesday, with the exception of the Inner Harbor Navigational Canal (IHNC) which remains closed. Vessels may access the east of the IHNC via the Baptiste Collette alternate route. There is a draft limitation of 9.5 feet in the Baptiste Collette route.
- The Port of New Orleans now reports that its headquarters building has power. The port is not open to commercial traffic; however, officials have set a goal by September 14 to allow commercial cargo ships enter the port. The Port is currently berthing military and relief vessels.
- The Tables below show, as of 9/7/05, the current status of the refineries impacted by Hurricane Katrina. Improvements continue in the Southeast refinery complex.

**Table 1. Shutdown Refineries**

Refinery	Location	State	Capacity (bbl/day)	Current Status
ConocoPhillips*	Belle Chasse	LA	247,000	No power - major damage
ExxonMobil	Chalmette	LA	187,200	No power - water damage
Motiva (Shell)	Norco	LA	226,500	Limited damage, continue to make repairs – expecting to restart later this week
Murphy	Meraux	LA	120,000	No power – water is starting to recede, currently making assessment of damage, leaking crude oil tank repaired
Shell Chemical	St Rose	LA	55,000	Awaiting Norco restart
ChevronTexaco*	Pascagoula	MS	325,000	Damage unknown – assessment being made

**Table 2. Refineries with Reduced Runs**

Refinery	Location	State	Capacity (bbl/day)	Current Status
Marathon	Garyville	LA	245,000	Restarted – expecting full operation by the end of today
Motiva (Shell)	Convent	LA	235,000	Restarted – operating at reduced rates expect full production later this week.
Valero	Krotz Springs	LA	80,000	Close to 100 percent - receiving SPR
Valero	St. Charles	LA	185,000	Restarting – expecting to be fully operational within one week.

**Table 3. Refineries at Normal Production**

<b>Refinery</b>	<b>Location</b>	<b>State</b>	<b>Capacity (bbl/day)</b>	<b>Current Status</b>
Shell Chemical	Saraland	AL	80,000	Operating at full rate for gasoline and reduced rate for chemicals and other products
ConocoPhillips	Wood River	IL	306,000	OK
ExxonMobil*	Joliet	IL	238,000	OK
PDV Midwest	Lemont	IL	160,000	OK
Marathon	Robinson	IL	192,000	OK
BP	Whiting	IN	410,000	OK – receiving SPR
Marathon	Catlettsburg	KY	222,000	OK
Citgo*	Lake Charles	LA	324,300	OK
ConocoPhillips*	Lake Charles	LA	239,400	OK
ExxonMobil*	Baton Rouge	LA	493,500	OK – receiving SPR
Placid Oil*	Port Allen	LA	48,500	OK – receiving SPR
Marathon	Detroit	MI	74,000	OK
BP	Toledo	OH	160,000	OK – receiving SPR
Marathon	Canton	OH	73,000	OK
Premcor	Lima	OH	158,400	OK – receiving SPR
Premcor*	Memphis	TN	180,000	OK – receiving SPR
ExxonMobil*	Beaumont	TX	348,500	OK
Motiva (Shell)*	Port Arthur	TX	285,000	OK
Premcor	Port Arthur	TX	247,000	OK
Total*	Port Arthur	TX	211,500	OK - receiving SPR

\* Refineries with company owned and operated on-site power generation.

## **ELECTRICITY INFORMATION**

### **STATE OUTAGE DATA**

<b>Utility</b>	<b>Customers w/o Power</b>	<b>% Customers w/o Power from Katrina</b>
<b>Louisiana*</b>	<b>468,152</b>	<b>47%</b>
<b>Mississippi</b>	<b>263,282</b>	<b>19%</b>

\*Louisiana data is reported by the Louisiana Public Service Commission and their percentage outage numbers are used in calculating the percentage of total outage.

## **STATE REPORTS**

### **Mississippi and Louisiana**

- In Louisiana 468,152 customers remain without power, as reported by the Louisiana Public Service Commission (LAPSC) (2400 hrs 9/7/05).

### Louisiana Outage Data (2400 hrs 9/7/05)

UTILITY	OUTAGES	% customers w/o power
Entergy Louisiana	174,272	41%
Entergy Gulf States	35	<1%
Entergy New Orleans	197,533	92%
DEMCO	1,533	4%
SLECA	362	2%
Wash-St. Tammany	35,707	79%
CLECO	58,710	74%
<b>Total</b>	<b>468,152</b>	<b>47%</b>

\*Louisiana data and percentages are reported by the Louisiana Public Service Commission.

- As of 6:00 PM Wednesday 9/7/05, Mississippi has 263,282 customers without power, which represents 19 percent of customers in the state, including 17,751 Entergy customers, 84,530 Mississippi Power customers, 151,716 customers of the Electric Power Associations of Mississippi (EPAOFMS), and 9,285 TVA customers. Entergy reports most customers will have power restored by 9/11/05 as does Mississippi Power. EPAOFMS estimates restoration will not occur until later next week.
- Cleco Corp., a Co-op servicing Louisiana, estimated yesterday that it will have power restored to 80 percent of its customers who can take electricity within the next two weeks.
- Mississippi Power lost all of its systems, including telecommunications, and suffered extensive facilities damage, including the use of all generating units at Plant Watson in Gulfport. Restoration crews totaled 9,200 on 9/6/05. **Updated restoration goals are:**
  - September 8: Bay St. Louis, Long Beach, Wiggins/Saucier
  - September 9: Pascagoula/Moss Point, Pass Christian, DeLisle
  - September 10: Hattiesburg, Laurel
  - September 11: Biloxi, Gulfport, Picayune, Poplarville
- The EPAOFMS estimated that more than 50,000 utility poles were destroyed by Katrina. All 25 electric power associations suffered some loss of service during the storm. Fifteen of those co-ops have completely restored power. Coast Electric Power Association in Bay St. Louis and Southern Pine Electric Power Association in Taylorsville are currently reporting the most customers are without power. More than 7,605 co-op crew members from Mississippi and 14 other states as far away as Pennsylvania are assisting in restoration in the state.
- In the Entergy Mississippi area 100 percent of the substations are restored and transmission lines continue to be energized.
- On 9/6/05, Entergy energized substations in the Central Business District of New Orleans, restoring power to some downtown locations. Additional activities will be required before service can be provided to all New Orleans customers. Security concerns and access to flooded facilities continue to be an issue for crews. More transmission lines and substations were energized today on the westbank of Jefferson Parish. All

transmission substations in the region that did not sustain flood damage are back in service. As of 8:00 AM 9/6/05, Entergy had 42 transmission lines out and 34 substations.

- Resources from around the country are in the Entergy service territory helping to restore power. Entergy has approximately 10,000 line and vegetation workers, plus support, committed to restoring service. More personnel are arriving and Entergy continues working to bring in additional restoration personnel.

## **Florida**

- The FRCC State Capacity Emergency Coordinator declared a Generating Capacity *Advisory* for Wednesday, September 7, 2005. This is a reduced level of concern from the *Alert* that has been in effect since Hurricane Katrina impacted the natural gas production facilities in the Gulf of Mexico Region. Although there is still considerable uncertainty as to when normal natural gas production levels will resume, current production levels appear to have stabilized. Tropical Storm Ophelia appears to be mostly a rain event thus far for the eastern coast of Florida.